EARTH SURFACE PROCESSES AND LANDFORMS, VOL. 21, 979–984 (1996)

# BOOK REVIEWS

RECENT STUDIES IN GEOPHYSICAL HAZARDS edited by M. I. El-Sabh, T. S. Murty, S. Venkatesh, F. Siccardi and K. Andah, Kluwer Academic Publishers, Dordrecht, 1994. No. of pages: 285. ISBN 0-7923-2972-4.

This volume is the outcome of a symposium held at the University for Foreigners, in Perugia, Italy, in 1991. It is intended as a contribution to the International Decade for Natural Disaster Reduction (IDNDR) and, according to the blurb, the fifteen papers selected for publication represent '. . . a unique overview of the state-of-the-science in . . . climatic, atmospheric, hydrological and geological hazards'. The book aims to provide a reference source for scientists, engineers and policy makers.

The emphasis throughout is on the technical aspects of simulating, modelling, predicting and forecasting a selection of potentially hazardous geophysical processes, such as intense rainfall, storm surges, mass movements and seismic activity. There is still little to justify, or link, the contributions within the four main sections of the book, and some papers are so case-specific as to make it difficult to judge either the novelty or the transferability of the science. In a few instances, such as the papers on time-series analysis of temperature and precipitation in Barcelona and on mass movements in Nigeria, a clear hazard context is missing. Such displays of modern science and technology—on their own—are unlikely to advance in a material way the objectives of the IDNDR. Some recognition of this is contained in the concluding report and recommendations of the meeting, although the account is too brief to be really useful.

Despite these reservations, there are several papers of wider interest. These include a descriptive account of the role of sedimentation in major Bangladesh floods and a splendidly comprehensive paper on snow avalanches in the Kaghan valley, Pakistan Himalaya, which does much to redress the dearth of literature on such hazards in the Third World. In one of the few papers with a direct message for policy makers, the author revisits earlier work on the effects of vegetation canopies on water flow to show how plants, such as reed grass, could be deployed in restricting the inland penetration of storm surges.

Who will buy this book? It is not sufficiently balanced to appeal to the natural hazards community and, in any case, specialists can read any paper in the *Natural Hazards* journal where they have all been separately published. Given the presence of five editors, more could have been done to improve the standard of written English and proof-reading, to avoid the eccentricity of an isolated abstract and, above all, to provide a better hazard context for the individual papers.

KEITH SMITH
*University of Stirling, UK*

---

ROCK WEATHERING AND LANDFORM EVOLUTION edited by D. A. Robinson and R. B. G. Williams, Wiley, Chichester, 1994. No of pages: xi + 159. Price £85.00 (hardback). ISBN 0 471 95119 6.

Few groups of natural processes are of wider interest to earth and environmental scientists than those involved in rock weathering. Rock weathering processes play an essential role in the development of many landforms, in the production of terrigenous sediment, and in the formation of soils and mineral deposits; furthermore, they are of great significance to civil engineers and architects through their influence on ground conditions and on the durability of construction materials. Yet, paradoxically, the detailed nature of weathering mechanisms, and the relative rates at which they operate under different environmental conditions, remain relatively poorly understood. Considerable advances in understanding have certainly been made during the past thirty years, largely through the wider availability of improved analytical techniques and the adoption of experimental approaches in weathering studies, but numerous issues remain unresolved.

This volume contains a collection of 28 papers which illustrate the current status of understanding of the relationships between rock weathering and landform development, and their implications. The majority of the contributions are based on presentations made at the Annual Conference of the British Geomorphological Research Group held at the University of Sussex in September 1992, with selected invited additions. The book is divided into six sections which contain between three and seven chapters, plus a useful introduction by the editors which provides an overview of recent advances in weathering studies. Section 1 focuses on weathering processes